

What is claimed is:

- 5 1. A method of identifying compounds capable of inhibiting fibronectin-mediated processes, comprising determining whether a candidate compound binds a fibronectin Type III polypeptide.
2. The method of Claim 1 in which it is determined whether the compound binds the fibronectin Type III polypeptide in a competitive binding assay.
- 10 3. The method of Claim 2 in which the fibronectin Type III polypeptide is an RGD-containing fibronectin Type III polypeptide.
- 15 4. The method of Claim 2 in which the compound competes for binding with a uteroglobin-like compound.
5. The method of Claim 2 in which the compound competes for binding with a 4-helix bundle polypeptide.
- 20 6. The method of Claim 5 in which the 4-helix bundle polypeptide is uteroglobin.
7. The method of Claim 6 in which the uteroglobin is recombinant human uteroglobin.
8. The method of Claim 1 in which the fibronectin-mediated process is cell adhesion.
- 25 9. A method of identifying compounds capable of inhibiting fibronectin-mediated processes, comprising determining whether a candidate compound inhibits or disrupts binding between a fibronectin Type III polypeptide and a uteroglobin-like compound.

10. The method of Claim 9 in which the determination of whether a candidate compound inhibits or disrupts binding between a fibronectin Type III polypeptide and a uteroglobin-like compound is carried out in a competitive binding assay.

5 11. The method of Claim 9 in which the fibronectin Type III polypeptide is an RGD-containing fibronectin Type III polypeptide.

12. The method of Claim 9 in which the uteroglobin-like compound is a 4-helix bundle polypeptide.

10 13. The method of Claim 12 in which the 4-helix bundle polypeptide is uteroglobin.

14. The method of Claim 13 in which the uteroglobin is recombinant human uteroglobin.

15 15. The method of Claim 9 in which the fibronectin-mediated process is cell adhesion.

16. A method of identifying compounds having uteroglobin-like activity, comprising determining whether a candidate compound inhibits or disrupts binding between a fibronectin Type III polypeptide and a uteroglobin-like compound.

20 17. The method of Claim 16 in which the determination of whether a candidate compound inhibits or disrupts binding between a fibronectin Type III polypeptide and a uteroglobin-like compound is carried out in a competitive binding assay.

25 18. The method of Claim 16 in which the fibronectin Type III polypeptide is an RGD-containing fibronectin Type III polypeptide.

19. The method of Claim 16 in which the uteroglobin-like compound is a 4-helix bundle polypeptide.

30 20. The method of Claim 19 in which the 4-helix bundle polypeptide is uteroglobin.

21. The method of Claim 20 in which the uteroglobin is recombinant human uteroglobin.

22. A method of identifying a ligand for uteroglobin, comprising determining whether a
5 candidate ligand compound inhibits or disrupts binding between a fibronectin Type III polypeptide
and a uteroglobin-like compound.

23. The method of Claim 22 in which the determination of whether a candidate ligand
10 compound inhibits or disrupts binding between a fibronectin Type III polypeptide and a
uteroglobin-like compound is carried out in a competitive binding assay.

24. The method of Claim 22 in which the fibronectin Type III polypeptide is an RGD-
containing fibronectin Type III polypeptide.

25. The method of Claim 22 in which the uteroglobin-like compound is a 4-helix bundle
15 polypeptide.

26. The method of Claim 25 in which the 4-helix bundle polypeptide is uteroglobin.

27. The method of Claim 26 in which the uteroglobin is recombinant human uteroglobin.

28. A method of identifying compounds capable of modulating uteroglobin-mediated processes,
comprising determining whether a candidate compound inhibits or disrupts binding between a
20 fibronectin Type III polypeptide and a uteroglobin-like compound.

29. The method of Claim 28 in which the determination of whether a candidate compound
inhibits or disrupts binding between a fibronectin Type III polypeptide and a uteroglobin-like
25 compound is carried out in a competitive binding assay.

30. The method of Claim 28 in which the fibronectin Type III polypeptide is an RGD-
30 containing fibronectin Type III polypeptide.

31. The method of Claim 28 in which the uteroglobin-like compound is a 4-helix bundle polypeptide.
- 5 32. The method of Claim 31 in which the 4-helix bundle polypeptide is uteroglobin.
33. The method of Claim 32 in which the uteroglobin is recombinant human uteroglobin.
34. A method of identifying a compound capable of inhibiting a fibronectin-mediated process, comprising the steps of:
- 10 a. contacting a candidate compound of interest with a complex comprising a fibronectin Type III polypeptide and a 4-helix bundle polypeptide; and
- b. determining whether the candidate compound competitively binds the fibronectin Type III polypeptide.
- 5 35. The method of Claim 34 in which the 4-helix bundle polypeptide is labeled with a detectable label.
36. The method of Claim 34 in which the 4-helix bundle polypeptide is uteroglobin.
- 20 37. A method of identifying receptor-ligand pairs, comprising:
- searching a sequence database to identify a first set of polypeptides and a second set of polypeptides, wherein the polypeptides of the first set include a 4-helical bundle motif and the polypeptides of the second set include a fibronectin Type III domain; and
- 25 determining which polypeptides of the first set and which polypeptides of the second set are capable of coming together to interact in a physiological setting, wherein the ability of the polypeptides to interact in a physiological setting identifies the polypeptides as being a receptor-ligand pair.
- 30 38. A method of identifying a ligand for a polypeptide including a 4-helix bundle motif, comprising:

searching a sequence database to identify a polypeptide including a fibronectin Type III domain; and

5 determining whether the polypeptide including a fibronectin Type III domain and the polypeptide including a 4-helix bundle motif are capable of coming together to interact in a physiological setting, wherein the ability of the polypeptides to interact in a physiological setting identifies the polypeptide including a fibronectin Type III domain as being a ligand of the polypeptide including a 4-helix bundle motif.

39. A method of identifying a ligand for a polypeptide including a fibronectin Type III domain, comprising:

10 searching a sequence database to identify a polypeptide including a 4-helix bundle motif; and

15 determining whether the polypeptide including 4-helix bundle motif and the polypeptide including fibronectin Type III domain are capable of coming together to interact in a physiological setting, wherein the ability of the polypeptides to interact in a physiological setting identifies the polypeptide including a 4-helix bundle motif as being a ligand of the polypeptide including fibronectin Type III domain.

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